

# *Risk Management and Internal Model Governance*

September 2011

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## *Areas I will cover today*

1. A reminder on why we are doing this.....
2. The responsibilities of the Board and the role of risk management
3. The Internal Model
4. Governance of the Internal Model – some thoughts

# *1. A reminder on why we are doing this.....*

# *Solvency II objectives*

*What is the purpose of Solvency II?*

*‘The overarching objective of Solvency II is to bring about a fundamental change to the solvency and risk management standards for the European insurance industry, with the intention of significantly strengthening the prudential standards to which European insurers adhere.*

*What are the consequences ?*

*The consequence of these improvements should be a significant reduction in the probability of firm failures and a resultant significant improvement in policyholder protection.’*

**Hector Sants**

Chief Executive Officer, the FSA

Speaking at the “future of insurance regulation”, 9 February 2011

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# *What are the benefits of getting it right?*

- ✓ **Compliance...** meeting the regulatory requirements for Solvency II and Use Test
- ✓ **Better business decisions...** by aligning drivers for economic profit with the necessary behaviours and attitude towards risk
- ✓ **Risk function will be able to perform its role as a partner and coach...** to the business and exert its oversight once clear working practices have been embedded
- ✓ **Safeguarding reputation ...** knowing that frontline will take proper account of the risks
- ✓ **Strong “risk aware” culture ...** where everyone is a risk manager who understands their responsibilities and the value of being risk aware
- ✓ **Recognition and contribution of effective risk management....** on their own performance and seek support and guidance on the risk decisions they take

## *2. The responsibilities of the Board and the role of risk management*

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## ***Internal model - quoted responsibilities of the Board***

- Approve application for internal model approval and application for any major changes/extensions to the model;
- Define roles and responsibilities of internal model governance;
- Strategic direction of the model (and any associated changes to the model)
- Agree major changes to model in advance of change;
- Align model design and operations with the firm's risk profile and operations;
- Ensuring there are sufficient resources to develop, monitor and maintain the model
- Monitor on-going compliance with the requirements for internal model approval, and inform FSA (or equivalent) if the model ceases to comply;
- Ensure adequate independent review process over internal model design, operation and validation; and
- Ensure model outputs are aligned with use – i.e. that the management information produced by the model assists in decisions made at Board level.

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# *Governance and key functions*

*Risk Management*

*Internal Audit*

*Compliance*

*Actuarial*

*Finance*

# ***Risk management function – Solvency II Directive Article 44 (extract)***



- *Monitor and assist in the effective operation of the risk management system.*
- *Design, implementation, testing, validation and documentation of internal model*
- *Inform the boards about the performance of the internal model, suggesting improvements, and updating that body on the status of efforts to improve previously identified weaknesses.*

# 3 pillars approach

PILLAR 1	PILLAR 2	PILLAR 3
<p><b>Quantitative requirements</b></p> <ul style="list-style-type: none"><li>• Assets and Liabilities – market consistent valuation</li><li>• Investments</li><li>• Solvency Capital Requirement:<ul style="list-style-type: none"><li>• European Standard Formula; or</li><li>• Internal Model</li></ul></li><li>• Minimum Capital Requirement</li><li>• Own Funds</li></ul>	<p><b>Risk Management and Governance</b></p> <ul style="list-style-type: none"><li>• System of governance including Risk Management</li><li>• Own risk and solvency assessment (ORSA)</li><li>• Supervisory review process</li></ul>	<p><b>Reporting and Disclosure</b></p> <ul style="list-style-type: none"><li>• Public Disclosure – annual Solvency &amp; Financial Condition Reports (SFCR)</li><li>• Supervisor Disclosure – Regular Supervisor Report (RSR)</li><li>• Quantitative Reporting Templates (QRT)</li></ul>



# *3. The Internal Model*

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# *Some thoughts on what went wrong with banking models....*

1. Models do not matter if the fundamental premise of the strategy is flawed
2. Over-reliance on models:
  - A model output can help to form a business judgement but cannot provide a judgement in itself
  - Risk cannot be automated – even the most advanced risk models are only as effective as the quality of the data, validity of the underlying assumptions and the ability of management to correctly interpret the results
  - Were models properly embedded in risk management & governance?
  - Models are not objective – broadly 10% data and 90% assumptions
  - Economic capital models often did not reflect the market pricing of risk and therefore led to undercapitalisation
3. Over-reliance on historical data and past scenarios – the risk environment is constantly evolving and therefore the past is an uncertain guide to the future

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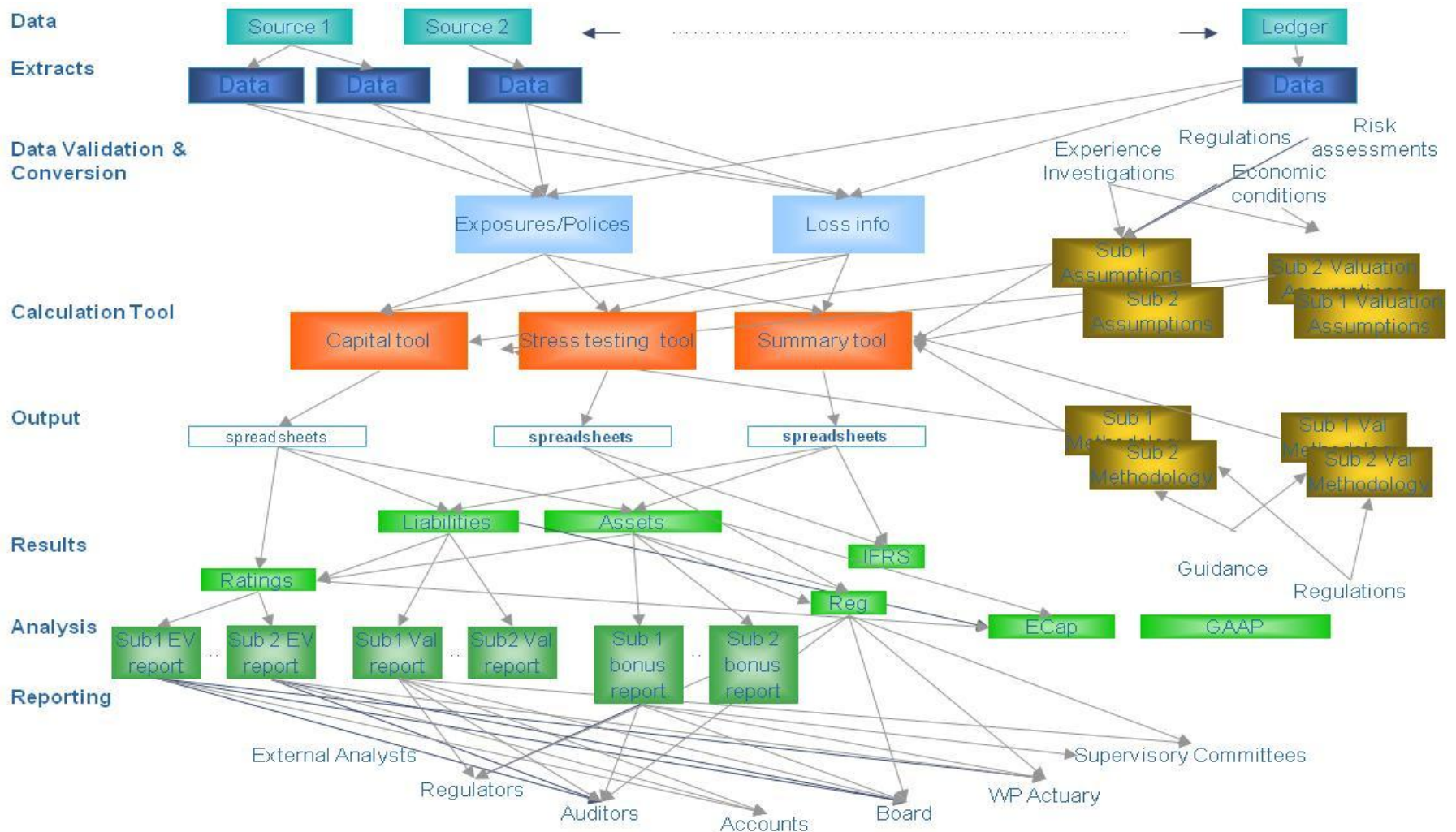
## ***What does the recent financial crisis say about internal models?***

*‘Risk management is much more than models. The CRO Forum believes that risk models are indispensable for managing the business. However the risk models must be – and in many cases are already – complemented with Internal Controls, such as risk concentration limits on a notional gross and net basis, Probable Maximum Loss (PML) limits, or stress and scenario testing. Finally, there is no substitute for a deep understanding of the risks involved in the business – and for common sense.’*

*CRO Forum ‘Comments on the financial crisis’, 24.10.08*

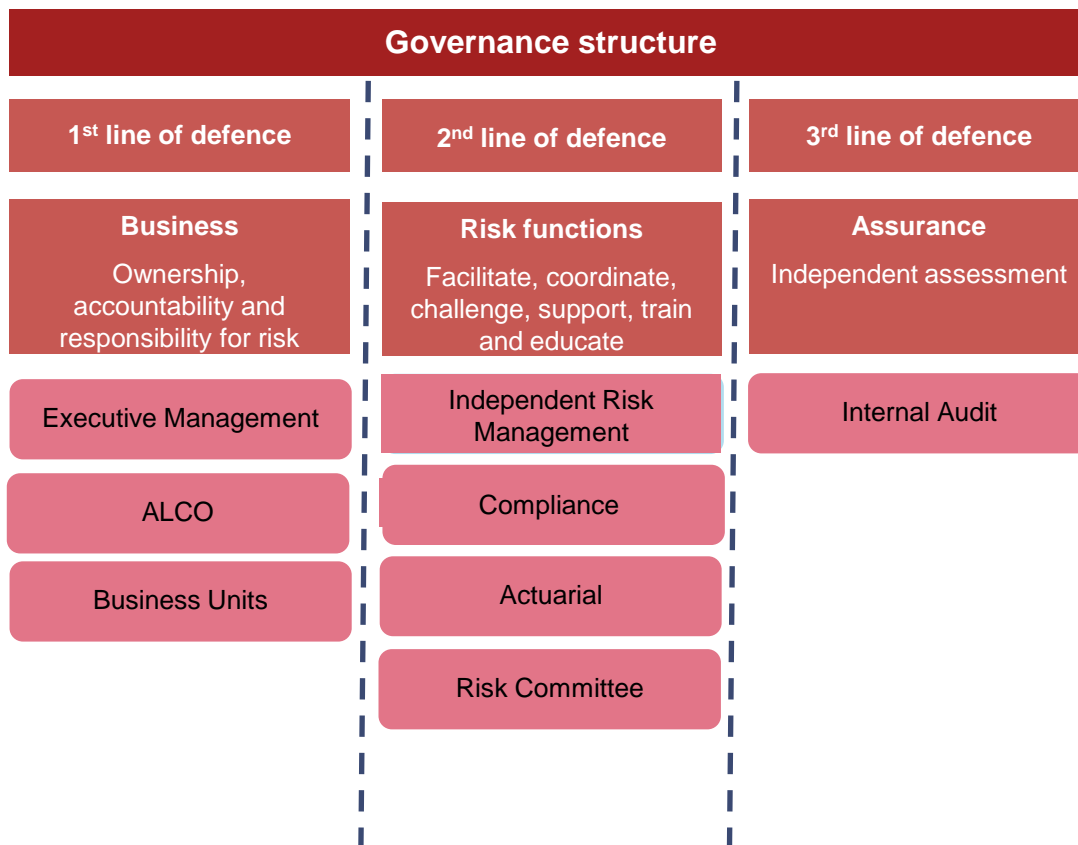
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# SII Internal Model – the ugly truth?



# *4. Governance of the Internal Model – some thoughts*

# Governance & organisation – key responsibilities



- **Principle of proportionality** – governance framework should take into account the nature and scale of business operations and complexity of organisation and its risks
- **Documentation**
  - Sufficient evidence of "governance at work" (e.g. minutes capture the depth and extent of discussions, especially on contentious points, independent perspectives provided by 2nd line of defence functions to inform decision takers)
  - Policies and procedures to ensure that all required persons are fit and proper
- **Quality assurance** – data, model and governance system to be validated and documented (including any changes)
- **Functions dealing with material risk areas** - in particular, firms must demonstrate how underwriting, reserving, investment and ceded reinsurance functions are managed and controlled

# Governance & organisation – key responsibilities

## 1<sup>st</sup> Line of Defence

Business management are responsible for the identification and assessment of risks and controls.

### Key Attributes

- Promote a strong risk culture and sustainable risk-return thinking
- Promote a strong culture of adhering to limits and managing risk exposures
- Ownership, responsibility and accountability for identifying the risks
- Ongoing monitoring of inherent and identified risks
- Portfolio optimisation on the micro level

## 2<sup>nd</sup> Line of Defence

Risk Committees , together with risk functions challenge on; completeness/accuracy of risk assessments; risk reporting and the adequacy of mitigation plans.

### Key attributes

- Overarching “risk oversight unit” across all risk types
- Understand aggregated risk positions and support in developing and advising on risk strategies
- Objective oversight and challenge to the internal control framework used in the first line
- Second line committees are supported by the monitoring, advisory and challenging activities of the Risk (& Compliance) functions

## 3<sup>rd</sup> Line of Defence

Internal audit provides independent and objective assurance on the robustness of the risk management framework and the appropriateness and effectiveness of internal controls.

### Key Attributes

- Independent assurance on the robustness and application of the Group Risk Framework
- Assess the appropriateness and effectiveness of internal controls
- Ability to link business and risk with process and IT
- The assurance is supplied by the Board Audit Committee and the Internal Audit Function which reports in the aforementioned committee.

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# ***Model governance steps for risk management***

Part 1: Single common language around internal model and governance

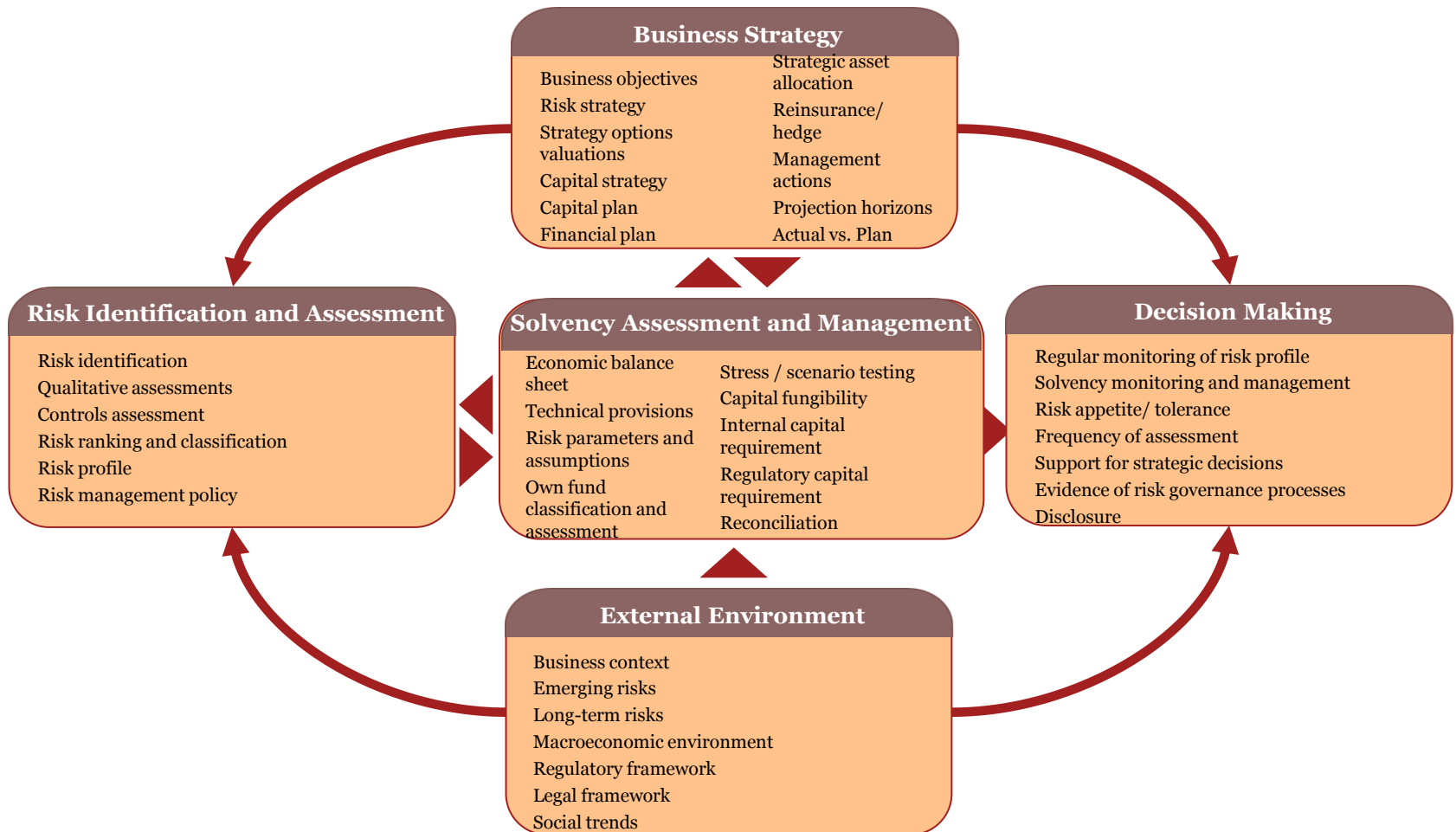
Part 2: Clear lines of responsibility and Terms of reference:

- › Board, Risk Committee, Risk Function, Model Oversight Committee, Actuarial team
- › Project delivery and IMAP mode and “BAU” mode

Part 3: Internal model validation

Part 4: ORSA as part of the risk management framework

# The ORSA framework



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